STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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SECRETARY

EDS MEMO TO: All users of NCBDS

FROM: Brian Hanks, P. E.
Project Engineer

DATE: September 24, 2010

SUBJECT: PILE STRUCTURAL CHECK

Appendices A and B of Chapter 14 in the *NCBDS Manual* have been revised to provide interaction diagrams that use an effective length factor, *K*, of 1.65 in the longitudinal direction. This revision accounts for the contribution of the superstructure in restraining movement at the top of piles in pile bents. The *K* factor in the transverse direction remains 1.2.

In addition, the interaction diagrams in Appendix B4 (prestressed concrete piles) have been updated to reflect an increase in concrete strength from $f_c^{'} = 5.0ksi$ to $f_c^{'} = 7.5ksi$.

Use the interaction diagrams when performing the structural checks for steel and prestressed concrete piles at interior bents. Refer to *NCBDS Manual 14 – RC Pier* for more details. The manual is available on the network via the following path: S:\Share\NCBDS Manual

BCH/AC

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